

Abstract

A particle collector comprises a housing defining an enclosed chamber. An inlet opening in the housing provides fluid communication between a source of gas and particles and the chamber and an outlet opening provides fluid communication between the chamber and the exterior of the housing. The outlet opening is connected to a pump for drawing gas and particles through the housing from the inlet opening to the outlet opening. A collecting member having an adhesive on at least a portion of the surface is disposed in the chamber between the inlet opening and the outlet opening. The adhesive surface of the collecting member is positioned adjacent to the inlet opening. When gas and particles are drawn through the housing, the inlet opening directs a stream of gas and particles at the surface of the collecting member. Particles having an aerodynamic equivalent diameter of less than about 2.5 μm are captured.